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ABSTRACT

Forty-eight chief state certification officers and 50 state Comprehensive System of Personnel Development (CSPD) officers responded to a two-part survey on special education certification and the supply and demand of special education and related services personnel. Survey data were considered within the context of recently approved federal guidelines that expand the responsibilities associated with state CSPD plans. Trends were identified in the certification of special education teachers, including more noncategorical or less categorical certificates, more attention to specific teacher competencies, multiple routes to initial certification, and provision for emergency certification. Shortages of special education and related services personnel were identified, as were barriers to accurate monitoring of supply and demand. CSPD involvement in recruitment and monitoring of supply and demand prior to the implementation of the 1992 regulations was also described. Finally, areas where collaboration is needed among state education agencies, local education agencies, and institutions of higher education personnel were identified. Eight major conclusions and associated recommendations are offered. Appendices include both parts of the survey and the text of the 1992 federal regulations. (Contains 26 references.) (DB)

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CURRENT AND PROJECTED PRACTICES FOR CERTIFICATION AND MONITORING OF PERSONNEL NEEDS IN SPECIAL EDUCATION

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Abstract

Chief State certification officers and State comprehensive system of personnel development (CSPD) officers in the United States were asked to provide information on special education certification and on the supply and demand of special education and related services personnel. A two-part survey was sent to 51 State certification officers and to 51 CSPD officers. Respondents to the certification portion of this survey numbered 48 of 51 State certification officers, or 94 percent. Respondents to the CSPD portion of the survey numbered 50 of 51 CSPD officers, or 98 percent. Survey data were considered within the context of recently approved federal guidelines that expand the responsibilities associated with State CSPD plans. Trends were identified in the certification of special education teachers. Shortages of special education and related services personnel were identified, as were barriers to accurate monitoring of supply and demand. CSPD involvement in the areas of recruitment and monitoring of supply and demand prior to the implementation of the 1992 regulations was described also. Finally, areas where collaboration is needed between SEA (State education agency), LEA (local education agency), and IHE (institutions of higher education) personnel were identified.

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During the past decade, concern has been rising about the Nation's supply of teachers and how teachers are prepared for their profession, both in general and in special education. Several topics related to teacher preparation and supply are recurring in this national debate. For example, educators have reconsidered State certification standards, procedures for recruitment and selection of teachers, and accreditation processes for teacher education. Educators have also expressed concern over the lack of firm data regarding the number of teachers being prepared to enter the work force (Bowen & Stearns, 1992; Boe, 1990; Geiger, 1989; Patton & Braithwaite, 1990; Smull & Bunsen, 1989).

A major issue that has attracted considerable attention is teacher certification and related trends and processes. With regard to the field of special education, controversies associated with the certification, preparation, and supply of teachers have reflected broader national discussions related to general education. A basic concern relating to certification is the historic lack of consensus among States regarding how special education teachers are certified and prepared for service. A number of studies have been reported that address one or more issues related to this topic (Chapey, Pyszkowski, & Trimarco, 1985; Smith-Davis, Burke, & Noel, 1984; Heller, 1983; Leigh & Patton, 1986; Lilly, 1992; Sanders, 1985; Smith-Davis, Burke & Noel, 1984; Williamson, 1985).

The purpose of this study was three-fold, having the following objectives. The first objective was to conduct a national survey of State certification directors regarding certification practices that might affect the supply of special education teachers. A second objective was to conduct a national survey of special education comprehensive system of personnel development (CSPD) officers regarding State practices for overseeing the

development and monitoring of teaching and related services personnel. The final objective was to obtain quantitative and qualitative information specific to the number of special education graduates and projections of need for personnel in each State. Because the role of State CSPD officers might be unclear to individuals who are unfamiliar with special education administration at the State or local level, the responsibilities of CSPD officers will be summarized in the next few paragraphs.

State education agencies (SEAs) are responsible for supporting the provision of educational services to students with disabilities. Every three years, States submit to the Office of Special Education Programs (OSEP) a State plan that outlines the structure and extent of those services. Plans are amended annually, and receipt of Federal funds for special education is contingent upon approval of State plans.

One component of each State plan is directed at assessing and meeting States' personnel needs in special education. This component is the Comprehensive System of Personnel Development (20 U. S. C., Section 1413 (a) (3) (A, B)), known as CSPD. Each CSPD should include procedures relating to conducting needs assessment and inservice training for general and special education teachers, disseminating information derived from educational research or special projects to practitioners, and insuring that special education personnel are adequately prepared to fulfill their responsibilities. Each State has one designee, known as a CSPD officer, who is responsible for the coordination and implementation of CSPD activities.

CSPD efforts have historically been geared toward insuring or improving the quality of personnel who provide services to students with disabilities, but recent changes (34 CFR, Part 300, Sec. 380-383) expand CSPD responsibilities. Personnel in all States must submit an amendment

to State plans in 1993 that describes procedures to (a) monitor and insure an adequate supply of special education and related services personnel, and (b) insure that special education and related services personnel are adequately prepared. Leadership, or administrative, personnel are included in these new mandates. Specifically, CSPD officers will be asked to project future needs and describe current needs for special education personnel by discipline, and to report several supply-related statistics (i.e., the number of certificates awarded, the number of personnel employed by discipline, and the number of personnel employed on a temporary or emergency certificate). Involvement of CSPD officers in recruitment and retention efforts will also be required for the purposes of reducing personnel shortages and encouraging more minorities and persons with disabilities to become teachers. CSPD officers will be required to collaborate with representatives of institutions of higher education (IHEs) in the performance of these activities.

Method

Subjects

Respondents to the certification portion of the survey totaled 48 of 51 chief State certification officers, resulting in a response rate of 94 percent. Chief State certification officers are responsible for the licensure or certification of all teachers in their respective States, and were deemed the most appropriate sources of information regarding requirements for certification and numbers of certificates issued by type. Respondents to the CSPD portion of the survey totaled 50 of 51 CSPD officers, or 98 percent. CSPD officers coordinated activities related to enhancing

the quality of special education and related services personnel, most notably through development and implementation of staff development initiatives and through collaboration with IHEs. Beginning in 1993, these individuals are now also required to monitor personnel needs for special education teachers and related services providers.

Instrumentation

A two-part survey entitled State Certification and Personnel Monitoring Practices for Special Education was developed for use in this study. Questions in the first section of the survey (Part 1) were written to address certification practices that might influence the new supply of special education teachers and to estimate the numbers of newly certified teachers by special education category. Chief State certification officers in each of the 50 States and the District of Columbia were sent this part of the survey. Questions in the second section (Part 2) were written to estimate the demand for special education teachers and to describe CSPD recruitment activities related to addressing States' needs for special education teachers. Procedures related to the overall instrument development are described below, and a copy of the survey is located in Appendix A.

The validity and clarity of survey items was assessed through multiple reviews by subject-matter experts and practitioners. An initial list of survey questions was developed in January 1992. Following review and revision by the project researchers, the survey items were reviewed by professional staff familiar with either certification issues in special education or survey research and development at Illinois State University. Items were added, deleted, or revised based on this review. A decision

was also made to customize the items that addressed the number of certificates awarded to individuals based on each State's special education categories. A version of the survey was then prepared for review and comment by practitioners. This version was sent in February to eight selected State CSPD officers who represented a geographic cross-section of States. These individuals were asked to identify questions which were unclear or inappropriate for inclusion in the survey. Additionally, one State certification officer was interviewed and visited regarding the clarity, appropriateness, and feasibility of the questions relating to certification issues. Several changes were made as a result of the outside review. First, it was decided to separate the questions pertaining to CSPD information from those pertaining to State certification. The first part of the survey, pertaining to certification, was sent directly to State certification officers, rather than asking CSPD officers working from State special education departments to collect information from a separate department in their respective States. Second, certification questions which could be answered from a State-by-State review of the Manual on Certification and Preparation of Educational Personnel in the United States (NASDTEC, 1991), hereafter referred to as the NASDTEC Manual, were omitted from the survey form. When uncertainty existed concerning certification information obtained from the manual, State personnel were contacted by telephone to clarify the information. For the sake of clarity, terms (e.g., emergency certification) were defined in the survey in accordance with the terminology and definitions in the NASDTEC Manual.

In addition, it was necessary to define many of the certification requirements in order to avoid inconsistencies among the reports of State certification officers. These definitions were used when collecting data by

telephone and when verifying responses on completed surveys. One issue was of primary interest when writing these definitions; namely, determining the extent to which State requirements for granting approval to IHE programs should be included in this study. Requirements for program approval (i.e., State verification that IHE teacher preparation programs meet established criteria) are closely related to certification requirements. For example, many States require that candidates for admission to teacher education programs possess a specified minimum grade point average (GPA), but do not specify GPA when listing State certification requirements. In contrast, all States require a Bachelor's degree or higher in order to approve a teacher education program; nonetheless, all State certification requirements list the degree granted by a State-approved, or otherwise accredited, teacher education program along with other certification requirements. It was decided to limit this study to those requirements that were listed as certification requirements in State documents and not to include requirements that might be embedded in criteria for IHE program approval. In this way, the research focused on requirements for initial certification regardless of whether that certification was obtained through entitlement by an approved IHE program or though alternate procedures, such as transcript evaluation by SEA personnel. Items for which this distinction between program approval requirement and certification requirement was important are identified throughout the Results section.

Procedure

State chief certification officers and CSPD officers from each State and the District of Columbia comprised the groups sampled in this study. A list

of State certification officers was obtained from the NASDTEC Manual (1991). Part 1, the certification part of the survey, was mailed directly to these individuals on April 15, 1992. In addition, a list of State CSPD officers was obtained through personal communication with Mr. Karl Murray, Director of the CSPD Collaboration Institute for the Council for Exceptional Children. The CSPD portion of the survey, Part 2, was mailed on April 10, 1992.

All recipients of the survey were advised of the objectives related to this study and of the context in which the research was being conducted (i.e., as one part of a multifaceted project to determine the likely supply of preservice special education teachers nationwide). Respondents were promised copies of the written report emanating from this research and copies of related reports produced by the Preservice Supply and Demand Project (Bowen & Stearns, 1992). Respondents were also advised that responses to survey questions would be obtained through telephone interviews. Prior to calling survey recipients to collect information, initial calls were made to schedule a block of 30 to 40 minutes needed to collect data. Survey recipients were asked to be prepared to answer all questions at the appointed time.

Data collection began in May 1992 and continued through July 1992. When necessary, multiple calls were made to schedule appointments for data collection. In addition, personalized second requests for participation were mailed to those CSPD and State certification officers who had not responded by July 1, 1992.

Statistics were computed using the microcomputer version of the Statistical Package for the Social Sciences (Norusis, 1988). Descriptive statistics were used, where appropriate, in order to describe nation-wide

trends. Frequencies, percentages, and measures of central tendency and variability were among the statistics used. All responses to open-ended questions were transcribed and summarized to elaborate on trends.

Results

The first part of the survey dealt with certification issues that might affect the supply of newly certified special education teachers. It was sent to all State chief certification officers. The second part of the survey was sent to Comprehensive System of Personnel Development (CSPD) officers in each of the 50 States and the District of Columbia. All data were analyzed using frequencies, percentages, and, where appropriate, measures of central tendency and variability. In addition, comments by respondents were included with numeric results.

Certification of Special Education Personnel

Questions asked of chief State certification officers pertained to requirements for initial certification, alternate routes to initial certification, and emergency certification in each State. Certification officers were also asked to report the number of initial and emergency teaching certificates issued by area of specialization during the 1990-91 school year and the number of people to whom those certificates were issued. Responses to these questions are summarized in the following sections.

Requirements for Initial Certification

For the purposes of this study, an *initial certificate* was described as

the first, or lowest level, certificate issued to all teachers in the State. This certificate was further described as indicating that the individual had met the requirements to be a beginning teacher in a specified field of special education teaching expertise. Initial certificates for States are known by many different titles as described in the NASDTEC Manual (1991). Prior to asking questions from the survey during data collection, researchers confirmed the title of that State's initial special education teaching certificate with chief State certification officers or their designees.

Current requirements. The authors consulted the NASDTEC Manual (1991) and, where possible, copies of State certification requirements in special education to collect information about initial certification requirements. State certification officers were asked to clarify requirements whenever they were not clear in the reviewed documentation. See Table 1 for a graphic summary of the results reported in the following narrative.

Forty-six States and the District of Columbia required a Bachelor's degree awarded by an IHE having either a State-approved or otherwise accredited teacher education program for special education certification. According to the NASDTEC Manual (1991), the three States not included with this sample also had this requirement. In contrast, only one of the States in this sample required that candidates possess a Masters' degree or have completed a five-year teacher preparation program prior to certification in special education; but this State offered special education certification only on a second-stage, or advanced, certificate. Most States (i.e., 29, or 60 percent) responding to this survey offered certification as a special education teacher separately from elementary or secondary

teaching certification. However, 11 States (23 percent) required prior certification as an elementary or secondary teacher before granting a special education certificate or endorsement. Responses to this item are missing for eight States.

Testing requirements were considered next. Thirty-six of 48 States (75 percent) in this sample required candidates for initial certification in special education to pass a test of basic skills. States requiring candidates to pass a specialty area exam or test of teaching-related content numbered 25, or 52 percent.

State requirements for initial certification in special education were sometimes related to measuring or identifying specific aspects of a candidate's performance during his or her teacher education program. Among the States in this sample, 11 (23 percent) had established a minimum grade point average (GPA). Most frequently (i.e., in 8 States) this GPA requirement was 2.5 on a 4.0 scale. Candidate completion of specific courses was required for initial certification in 19 States (40 percent). To be included with this group, courses for certification must have been listed by title or by content description alongside other certification requirements. Eight States (17 percent) required evidence that candidates for initial certification had mastered specific competencies. Most frequently, these States required some type of performance assessment or written verification by an IHE that specified competencies had been mastered by the candidate. Thirty-three States (69 percent) did not have such a requirement, and information was missing for seven States. All States required practicum student teaching experiences as part of teacher preparation according to the NASDTEC Manual (1991).

Table 1

Current Requirements for Initial Certification in Special Education Teaching

Requirements for Initial Certification	No. of States Where Required[a]	Percent of States Where Required[a]
Master's degree or five-year program	1	2
Bachelor's degree	47	98
Basic skills test	36	75
Specialty area test	25	52
Specified grade point average	11	23
Specified course work	19	40
Assurance of specific student competencies	8	17
Elementary or secondary certificate	11	23
Completion of approved IHE program in specialty area	48	100
Practicum or student teaching	48	100

[a] N=48.

Recent changes. Chief State certification officers were asked if any changes had occurred in requirements for initial certification in special education during the last five years. Fifty-two percent of respondents, representing 25 States, indicated that requirements had changed. Those respondents were then asked to describe changes by (a) indicating whether specified requirements had been added, deleted, or remained the same, and (b) volunteering any additional changes. Responses are described below.

Requirements regarding the possession of either a Bachelor's or a Master's degree in education remained the same in all States. However, a basic skills test was added to requirements in six States, and a specialty area test was added to requirements in five States. A minimum grade point average was also added to certification requirements in one State. Finally, specified course work was added to the certification requirements in 10 States; but, in two States, such requirements were delete

Anticipated changes. Respondents who anticipated changes in special education certification requirements within the next five years numbered 29 (i.e., 60 percent of all respondents). Many described the expected changes.

Certification officers from 10 States predicted that special education certification would become more generic in nature. These 10 States represented 21 percent of the sample and 34 percent of those States anticipating a change in certification requirements. They included Alabama, California, Indiana, Iowa, Kansas, West Virginia, Michigan, North Carolina, Pennsylvania, and Vermont. In one of these States, the anticipated shift toward generic special education certification was believed necessary to allow local district administrators to more easily accommodate the needs of a rapidly shifting population of students. Certification requirements were also being revised in this State to reflect the competencies needed by beginning special education teachers. A certification officer from a second State echoed the need for inclusion of teacher competencies in certification requirements. This officer was working with other nearby State officials to identify those competencies and to develop a means of assessing candidate performance. The addition

of an early childhood certificate was being considered in two States, and the addition of other certification areas was reportedly being considered in another State. Policy makers in two States were considering the separation of special education certification by age or grade level of the students, but in another State, policy makers were considering the reverse. That is, officials in one State were considering replacing separate elementary and secondary special education certification with a unified, K-12 certificate in special education. Officials in yet another State were considering the issuance of separate certificates for general and special education.

Alternate Routes to Initial Certification

While the most common route to initial certification for special education teaching was through recommendation by an approved or accredited in-State IHE program, other avenues for certification existed, as well. Sometimes, States offered certification to candidates directly after evaluating the candidates' transcripts and other documentation. Other times, States offered certification options to individuals who were already certified in other States that were not available to in-State graduates. Because these procedures might impact upon the supply of newly certified special education teachers, questions regarding alternative procedures for obtaining initial certification were included in this survey.

Individual waivers of certification requirements. State certification officers were asked if anyone in their State was empowered to waive requirements for initial certification on an individual, or case-by-case basis. Responses to this question were divided: 21 (44 percent) affirmed that some person or board did have this authority and 27 (56 percent)

responded that no individual nor board had the authority to waive requirements. Most frequently, those having the authority to waive requirements on an individual basis included State superintendents (7 States), boards of education (8 States), or certification boards (4 States).

Reciprocity. Reciprocity refers to one State's recognition of teaching certificates issued to individuals by another State. Some States sign agreements, called interstate certification agreement contracts, acknowledging that they will recognize the certificates issued by other States. The NASDTEC Manual (1991) served as the primary source of information about which States had entered into reciprocal agreements with other States.

Of the States in this sample, 26 (54 percent) had signed interstate certification agreement contracts. Typically, States had signed contracts with many other States (M = 22.15, SD = 5.00).

Other procedures for obtaining initial certification. Avenues for obtaining initial certification varied from State to State, and multiple avenues sometimes coexisted within a single State. To determine the possible supply implications of these alternate procedures, State certification officers were asked if it was possible for an individual to obtain initial certification without meeting any one or more of the State's usual requirements. The list of requirements considered in answering this question was the same list previously considered when identifying current requirements and describing recent changes in initial certification (p. 77 in Appendix A). Certification officers were asked to respond to each item in one of three ways: (a) "Yes," if the item was considered a requirement

for initial certification in that State, but an individual could obtain initial certification, through alternate routes, without it; (b) "No," if an item was a requirement that could not be waived in the issuance of any initial certification; or (c) "N/A," if the item was not applicable because it was not required for initial certification in that State. Responses made by certification officers were verified by referring to the list of current requirements for each State. When a "yes" or "no" response was given but an item was not a requirement for initial certification, the response was recoded as "N/A." It is important to note that the frequency with which alternate routes and alternate requirements for initial certification were used varied from State to State. Table 2 displays these results.

The certification officer in the one State requiring a Master's degree or a fifth-year program reported that it was sometimes possible for an individual to obtain initial certification in special education without meeting this requirement. No State offered the possibility of receiving an initial certificate in special education teaching without completing at least a Bachelor's degree, but 19 of 48 States (40 percent) reported that initial certification could sometimes be obtained without completing a State-approved IHE program in the specialty area covered by the certification.

Regarding testing, 11 of 36 certification officers (31 percent) in States that required a basic skills test reported that it was possible to grant initial certification to an individual who had not taken or passed such a test. Twenty-five State certification officers reported that granting initial certification without the candidate's passage of the basic skills test was not possible. In all, 25 States required a test of teaching-related content or of content in the field of specialization. In 11 of those 25 States (44 percent), it was permitted to grant initial certification to individuals who had not

met this usual requirement, but alternate procedures in 14 States did not allow for certification without the specialty test. Certification officers from four States volunteered that the allowance of initial certification without a specialty area examination was reserved for out-of-State applicants. Officers from two States said this exemption lasted for only one year; and in one State, this exemption was only for candidates having more than two years of previous teaching experience.

Although 11 States in this study were found to require a minimum GPA for initial certification, certification officers in four of them reported that it was sometimes possible to obtain initial certification without this requirement. One State certification officer specified that only out-of-State candidates could be certified without consideration of GPA. Six State certification officers reported that the GPA requirement must always be met. One response was missing.

State certification officers were next asked if it was possible to obtain initial certification without completing specific course work requirements. Of the 19 States found to have such specific requirements in this study, certification officers from three (16 percent) reported that initial certification could be granted without those requirements being met; and 13 (68 percent) reported that initial certification could not be granted to anyone who did not meet all of the course work requirements. Responses were missing for three States.

Assurance of specific student competencies was required by eight States in this study. Of those eight, it was possible to obtain initial certification without such assurances in two States (25 percent), but not possible in four States (50 percent). Responses were missing for two of these States.

Among the 11 States requiring possession of an elementary or secondary certificate to obtain initial certification in special education teaching, seven certification officers (64 percent) reported that initial certification could possibly be obtained without prior certification. Officials in four States (36 percent) reported the opposite; that is, elementary or secondary certification must always accompany or precede special education certification.

Certification officers in 15 States (31 percent) reported that initial certification in special education could be obtained without completion of the student teaching requirement. For 25 States, the response to this item was "no," meaning that it was not possible to obtain initial certification without meeting student teaching requirements. Responses were missing for eight States in this sample.

Emergency Certification

Emergency certification was defined in accordance with the definition of a substandard, limited or emergency certificate authorizing long-term substitute teaching found in the NASDTEC Manual (1991). Sometimes called a temporary certificate or a permit, emergency certification refers to a short-term license issued to an individual who does not meet the basic requirements for initial certification, but who is needed to fill a vacant teaching position.

Duration and renewal. Information regarding the duration and renewal of emergency certificates was obtained from review of the NASDTEC Manual (1991) and confirmed, when necessary, through telephone contact during data collection. Information regarding the

possibility of emergency certification in special education was obtained for all States by referring to Table J-17 in the NASDTEC Manual (1991) and confirmed through telephone contact during data collection. Table J-17 showed those States offering emergency certification in any area of special education (n = 31) and those offering emergency certification in only specified areas of special education (n = 33). Overall, 43 of 51 States (84 percent) reported to NASDTEC that some type of emergency certification was available for special education teaching, and sometimes more than one type of emergency certification was available in a State. One State added emergency certification in special education since the publication of the manual.

Of the 48 respondents to this survey, 34 (71 percent) reported the duration of emergency certification to be a period of one year or less. Five of these States also issued a multiyear emergency certificate. Another five States offered only a multiyear emergency certificate. Overall, responses ranged from .5 school year to 5 years.

When asked to report the number of times an emergency certificate could be renewed, two States in this study responded that no limit was placed on the number of renewals. An additional 22 States (46 percent) required completion of a specified amount of college credit prior to the renewal of the emergency certificate. Only nine States allowed emergency certificates to be renewed, but limited the number of times. In 11 States (23 percent), emergency certificates were not renewable.

Requirements. State certification officers were asked to compare the requirements for emergency certification to those of initial certification. They were asked to identify which of the State's requirements for initial

certification could be waived or not met for the purpose of obtaining an emergency certificate. The list of requirements considered in answering this question was the same list previously considered when identifying current requirements, when describing recent changes in initial certification, and when describing alternate routes to initial certification. Certification officers were asked to respond to each item in one of three ways: (a) "Yes" if the item was considered a requirement for initial certification in that State, but an individual could obtain emergency certification without it, (b) "No" if an item was a requirement that could not be waived in the issuance of emergency certification, or (c) "N/A" if the item was not applicable because it was not required for initial certification in that State. Responses made by certification officers were verified by referring to the list of current requirements for each State. When a "yes" or "no" response was given but an item was not a requirement for initial certification, the response was changed to "N/A."

According to the NASDTEC Manual (1991), no emergency certification was issued for special education teaching in eight States. For two of the responding States, emergency certificates were never issued to individuals; instead districts were given waivers allowing them to hire a noncertified or nonqualified applicant. During data collection, representatives of two States described emergency certification requirements even though the NASDTEC manual categorized them as not offering emergency certificates for special education teaching.

Many certification officers emphasized the rarity of granting emergency certification under some conditions, even though they reported that it was technically possible. When appropriate, those areas will be identified in the narrative. Table 2 displays these results.

The certification officer from the State requiring a Master's degree or fifth-year program reported that emergency certification could be obtained without meeting this requirement. Officials from 10 States (21 percent) reported that an individual who had not completed a Bachelor's degree could be granted emergency certification for special education teaching. However, State certification officers from two of those States emphasized that the practice of granting emergency certification to an individual having only a high school diploma was extremely rare. Thirty-three States reported that it was impossible to grant emergency certification to an individual having no Bachelor's degree. Responses were missing for five States.

For an individual who had not completed an approved program in the specialty area from an IHE, emergency certification was possible in 35 States (73 percent). This requirement could not be waived, even for emergency certification, in six States. Responses were missing from seven States.

Regarding testing, certification officers in 25 of 36 States (69 percent) responded that emergency certification could be granted to an individual who had not taken nor passed a basic skills examination typically required for initial certification. In nine of these States (25 percent), officials reported that it was not possible to issue emergency certification to anyone who had not yet passed the basic skills test. Responses were missing for two States. Specialty area or teaching content exams were required for initial certification in 25 States. Among them, 18 (72 percent) could grant emergency certification to an individual who had not yet met that requirement; five (20 percent) could not; and two responses were missing.

A minimum grade point average requirement existed in 10 States that offered emergency certification for special education teaching. Of these, four (40 percent) could issue emergency certification to individuals not meeting this requirement; but four could not. Responses were missing from two States.

Certification officers in 11 of the 19 States (58 percent) requiring specific course work for certification reported that course requirements could be overlooked when granting emergency certification. One of the 19 States did not issue emergency certificates for special education teaching; five could not issue such certification when course requirements were not met; and responses were missing from two States.

Assurance of specific student competencies was required by eight of the States in this study. Of those eight, it was possible to obtain emergency certification without such assurances in three States (38 percent), but not possible in one State. Responses were missing for four States.

Among the 11 States requiring possession of an elementary or secondary certificate to obtain initial certification in special education teaching, certification officers from nine (82 percent) reported that emergency certification could be obtained by an individual having no prior certification. Officials from two States reported the opposite, that is, emergency special education certification is only issued to individuals having valid elementary or secondary certification.

Certification officers from 29 States (60 percent) reported that emergency certification in special education could be granted to individuals who had not completed the student teaching requirement. For 14 States (29 percent) the response to this item was "no," meaning that it

was not possible to obtain emergency certification without completing student teaching requirements. Responses were missing for five States.

Procedures. State certification officers were next asked to identify the procedures necessary for an individual to obtain emergency certification. Four procedures were listed, and certification officers were asked to identify all that applied to any type of emergency certificate in their respective States. They were also asked to volunteer any additional procedures. Responses were as follows.

In 20 States (42 percent), an individual receiving an emergency certificate must first present a written plan for meeting his or her deficiencies. Twenty-six States (54 percent) required that individuals receiving emergency certification had met a specified number or percentage of the requirements for initial certification. Sources outside of State boards of education are sometimes used to determine who receives emergency certification. Recommendation by a State-approved IHE program that grants entitlements was required in 12 of 48 States (25 percent). A total of 38 States (79 percent) required a formal request from the superintendent of the hiring district to issue an emergency certificate.

Seven States had other procedures for obtaining emergency certification. In three (43 percent), applicants for emergency certification were required to provide evidence of enrollment in a special education program leading to certification. Procedures in one State required support from an IHE and a special education teacher. Another State required the local district superintendent to provide copies of State-wide advertising of the vacant position. A character check of the candidate was required in one State, and one State did not describe the additional procedure.

Table 2

Requirements for Initial Certification, Alternate Routes to Initial Certification, and Emergency Certification in Special Education Teaching

Requirement[a]	Required for Initial Certification	Certification Possible without Meeting Usual Requirement	
		Initial	Emergency
Master's degree or five-year program	1	1(100%)	1(100%)
Bachelor's degree	47	0(0%)	10(21%)
Basic skills test	36	11(31%)	25(69%)
Specialty area test	25	11(44%)	18(72%)
Specified GPA	11	4(36%)	4(36%)
Specified course work	19	3(16%)	11(58%)
Assurance of specific student competencies	8	2(25%)	3(38%)
Elementary or secondary certificate	11	7(64%)	9(82%)
Completion of approved IHE program in specialty area	48	19(40%)	35(71%)
Practicum or student teaching	48	15(31%)	29(60%)

[a] N=48.

Numbers of Certificates Issued by States During 1990-91 School Year

State certification officers were asked to report several numbers, each of which pertained to estimating the supply of teachers who entered the job market during the 1990-91 school year. They were asked first to verify the existence of classifications, or categories of either certification endorsement in special education teaching, previously identified through review of their State's certification information or the NASDTEC Manual (1991). Next, they were asked to supply the number of initial certificates and emergency certificates issued during 1990-91 for each of the classifications. Finally, they were asked to provide the number of individuals receiving certification in special education teaching in their States: the total number of individuals receiving certification; the number of individuals receiving initial certification; and the number of individuals receiving certification who had never before been certified to teach in any State. Response rates varied greatly for these items.

Regarding the number of initial certificates or endorsements issued by area of specialization during 1990-91, officials from 17 States (35 percent) reported figures. Personnel from an additional three States were able to provide the total number of initial certificates issued, but not a breakdown on those certificates by area of specialization. See Table 3 for a listing of these certificates. The total number of special education teaching certificates issued by States in this study equalled 18,070. The State reporting the fewest certificates issued was Delaware (i.e., 83 certificates). The State reporting the largest number of certificates for that year was Wisconsin (i.e., 3,155 certificates). Within that range, the mean number of initial certificates in special education teaching was 904 (SD = 836).

Table 3

Special Education Initial Certificates Issued During 1990-91 By State and Area of Specialization

State	Area of Specialization Covered by Certificate or Endorsement[a]												
	GSE	ECE	HI	SLD	SED	MR	LI	VI	D	OI	MD	O	Σ
AR		12	296		14		60	6	22				410
DE													83
GA	540	34		426	410	686		31	59	17	17	17	2237
HI													130
ID	200	19						4	5	25	25		278
IL				480	300	243		18	42	12			1095
KS		80		200	120	164		4	12	7	8	52	647
ME	167						17	1	4			8	197
MD	221						3	3	5				232
MA	14	108	729				97	12	27				987
MI				115	187	256		15	36	34		33	676
MT	123												123
NE		17	187	15	11			2	4		5		241
NJ	1345			159				30	42				1576
NY	1054							8	52				1114
NC													1300
OH		58		837	375	530		9	45	29	300		2183
SC			68	254	91	251		4	34	17			719
TX	245				64	202	7	2	11			156	687
WI		323		1305	1175	244		21	71	9		7	3155
Σ	3909	651	1280	3791	2747	2576	184	170	471	150	355	273	18,070

[a]GSE = Generalist in Special Education, ECE = Early Childhood Education, HI = High-Incidence Disabilities, SLD = Specific Learning Disabilities, SED = Serious Emotional Disturbance, MR = Mental Retardation, LI = Low-Incidence Disabilities, VI = Visual Impairments, D = Deafness, OI = Orthopedic Impairments, MD = Multiple Disabilities, and O = Other.

Nineteen States (40 percent) reported the number of emergency certificates in special education teaching issued during 1990-91 according to area of specialization, and an additional two States reported the total number of emergency certificates issued for special education teaching that year. The number of emergency certificates issued State-wide varied from 10 in Nebraska to 1,110 in Wisconsin. Within this group, the mean was 416 (SD = 378); the total was 8,727. Table 4 reports these results by State and specialization area.

The 8,727 emergency certificates comprised one-third of the combined total of 26,797 certificates issued in 1990-91. Comparing the percentages of emergency to total certificates issued by State and by areas of specialization yielded interesting observations. By State, the need for additional special education teachers varied greatly, as evidenced by percentages ranging from 4 (Nebraska) to 58 (Texas), M = 26, SD = 15. Table 5 reports percentages of emergency certification for each of the 15 States that provided the number of both initial and emergency certificates issued during 1990-91. By area of specialization, the percentages of emergency to total certification ranged from 1 (other) to 80 (low incidence areas), M = 33, SD = 20. The classifications having the greatest shortfall of teachers, as judged by the percentage of emergency certificates, included low incidence (80), visually handicapped (49), and generalist in special education (41). Table 6 reports percentages of emergency certification for each of the areas of specialization.

Table 4

Special Education Emergency Certificates Issued During 1990-91 By State and Area of Specialization

State	Area of Specialization Covered by Certificate or Endorsement[a]												
	GSE	ECE	HI	SLD	SED	MR	LI	VI	D	OI	MD	O	Σ
AK	15												15
DE													66
GA	262	9		110	209	67		1	11	7	8	2	686
ID	22												22
IL				146	121	470				2			316
IA	115	24	215	34	78		33	7	19	1			526
MD	58												58
MA		8	197				31		2				238
MI													424
MS			218		4			3	5		6		236
MT	33												33
NE		2	4	3					1				10
NJ	829			21				4	1				855
NM	500												500
NY	68							12	9				89
NC		46	50	254	168	143	40	4					705
OH		200		420	110	100		7	5	12	150		1004
PA							600	111	152				863
RI			24				12						36
TX	768	17		52	18	36	9	12	23				935
WI		75		354	595	79		5	1	1			1110
Σ	2670	381	708	1394	1303	472	725	166	229	23	164	2	8727

[a]GSE = Generalist in Special Education, ECE = Early Childhood Education, HI = High-Incidence Disabilities, SLD = Specific Learning Disability, SED = Serious Emotional Disturbance, MR = Mental Retardation, LI = Low-Incidence Disabilities, VI = Visual Impairments, D = Deafness, OI = Orthopedic Impairments, MH = Multiple Disabilities, and O = Other.

Table 5

Percentage of Certificates Issued on an Emergency Basis by State during 1990-91

State	Initial Certificates Issued	Emergency Certificates Issued	Total Certificates Issued	Percentage of Emergency Certificates[a]
DE	83	66	149	44
GA	2237	686	2923	23
ID	278	22	300	07
IL	1095	316	1411	22
MD	232	58	290	20
MA	987	238	1225	19
NY	1114	89	1203	07
MI	676	424	1100	39
MT	123	33	156	21
NE	241	10	251	04
NJ	1576	855	2431	35
NC	1300	705	2005	35
OH	2183	1004	3187	32
WI	3155	1110	4265	26
TX	687	935	1622	58

[a]n = 15, the total number of States that reported both the number of initial certificates and the number of emergency certificates issued.

Few State certification officers reported the number of individuals to whom certificates were issued in a given year. The low response rates to the questions regarding the number of individuals who were certified prevent data analysis relative to this issue. State certification officers reported that their States do not typically collect this data, or they do not

have the manpower needed to retrieve this information from computerized records.

Table 6
Percentage of Certificates Issued on an Emergency Basis by Area of Specialization during 1990-91

Area of Specialization	Initial Certificates Issued	Emergency Certificates Issued	Total Certificates Issued	Percentage of Emergency Certificates
Low-incidence disabilities	184	725	909	80
Visual impairments	170	166	336	49
Generalist in special education	3909	2670	6579	41
Early childhood education	651	381	1032	37
High-incidence disabilities	1280	708	988	36
Deafness	471	229	700	33
Emotional disturbance	2747	1303	4050	32
Multiple disabilities	355	164	519	32
Learning disabilities	3791	134	5185	27
Mental retardation	2576	472	3048	15
Orthopedic impairment	150	23	173	13
Other	273	2	275	01

Comprehensive System of Personnel Development

Questions asked of individuals responsible for the implementation of CSPD initiatives addressed three themes: recruitment of special education personnel, practices for monitoring the supply and demand for special education personnel, and collaboration with IHEs. Responses to these questions are summarized in the following sections.

Recruitment of Personnel

Recent changes in CSPD guidelines (34 CFR, Part 300, Sec. 381, reprinted in Appendix B) would require States' CSPD officers to coordinate recruitment efforts and to involve representatives from local districts, IHEs, and professional organizations in those efforts. Questions about CSPD involvement in the recruitment of special education teachers prior to approval of the new guidelines were asked to (a) describe the nature and extent of these efforts prior to a Federal mandate and (b) determine the efficacy of implementing such a mandate. Paraprofessionals represent one group of individuals to recruit into teaching because of their presumed interest in special education. CSPD officers were first asked about existing or anticipated programs to encourage paraprofessionals to become fully certified as teachers. They were next asked to describe any other recruitment efforts already underway within their States' CSPD programs.

Paraprofessionals. CSPD officers were asked if their CSPD had established a means for enabling paraprofessionals to become certified as special education teachers. Nine States (18 percent) responded that such a process currently existed as part of their CSPD. One of these States

reported that the process was for emergency certification, requiring the recommendation of a superintendent and approval by a review committee. Another State reported that stipends were provided to assist paraprofessionals who are pursuing certification as a special education teacher. A third State described a collaborative process, involving both technical or vocational schools and colleges of education. Participants in that program can receive initial approval as paraprofessionals through the vocational or technical schools, then transfer those credits to a four-year university where they work toward full certification as a teacher.

The 41 respondents (82 percent) who indicated that no program existed to certify paraprofessionals as teachers were then asked if they anticipated the implementation of such a program within three to five years. CSPD officers in 17 States anticipated that such a program would be implemented within three to five years, while 16 CSPD officers predicted that a program of that type would not be implemented in their States during that time period. Responses to this item were not obtained for eight States. Many CSPD officers elaborated on their predictions, offering additional information or reasons why certification programs for paraprofessionals would or would not be implemented. These comments are summarized in the following paragraphs.

Eight States are either currently developing a process for enabling paraprofessionals to become certified as special education teachers or have written into their five-year plans that such a program will be developed. One of these States has developed a survey to gather input from paraprofessionals before determining a process. Four other States have begun discussions and are working with postsecondary institutions to develop a process. CSPD officers reported working with postsecondary

institutions of many types (i.e., four-year universities, technical or vocational schools, and community colleges).

A number of reasons were given for predicting that efforts to certify paraprofessionals would be implemented soon. One State, described by the CSPD officer as being very rural, had policy makers who viewed this type of program as being a high priority. Paraprofessionals in that State were described as being major service providers to children with special needs and as being people likely to remain in their current places of residence. Additionally, they were described as being highly unlikely to leave their present locations to receive the additional training needed to become teachers. Personnel in another State reported a need to provide paraprofessionals with an avenue for advancing themselves.

Conversely, many reasons were given by other CSPD officers to explain why implementation of a recruitment program for paraprofessionals was not anticipated. CSPD officers reported that such a program was not a priority in their State (2 States); that the condition of their State's finances would prevent implementation of any new programs (2 States); or that other agencies were involved in State- or government-controlled recruitment efforts (2 States). The CSPD officer from one State reported that it would be extremely difficult to become involved with any aspect of preservice teacher education because of the division of responsibility in State government. Certification officers in two other States reported that they had just begun to provide some type of license or approval for paraprofessionals, and that efforts were not expected to assist them to become teachers. The CSPD officer in one State reported the official policy stated that the decision to enroll in a teacher preparation program was a matter of individual choice.

Recruitment of new special education teachers. Each CSPD officer was asked if his or her CSPD program was engaged in any organized efforts to recruit new special education teachers. Thirty CSPD officers, (60 percent) responded affirmatively to this question, and reported the demographic characteristics of individuals who were being recruited:

- Minorities (7 States).
- High school students (7 States).
- Regular education teachers (6 States).
- Rural dwellers (5 States).
- Anybody (3 States).
- Retired military personnel (2 States).
- Disabled individuals (2 States).
- Low-income individuals (2 States).
- Urban dwellers (2 States).
- Bilingual individuals (1 State).

Some State CSPD officers provided a description of the recruitment activities in which they were engaged. Four respondents reported that a State-level task force or committee was meeting to supervise recruitment efforts, and four respondents volunteered that brochures were being used to attract new people to teaching. Brochures were mailed directly to targeted individuals and were placed in high schools. One State placed brochures in tourist booths to attract out-of-Staters. Two other State CSPD officers mentioned national conventions as a way to recruit people to their States or into special education. Four States offered assistance with college tuition to participants in recruitment efforts, while three made stipends available for prospective special education teachers. One State CSPD officer was sponsoring a meeting or workshop for special education directors, to

more fully inform them of approaches to recruitment and retention of teachers at the local level. Career awareness programs and job fairs were also mentioned by CSPD officers.

In other States, CSPD involvement in recruitment was described as limited. In five States, recruitment efforts in special education were reported to be led by regional or local agencies or committees who selected their own priorities and programs. In another State, all recruitment efforts were delegated to other departments within the State education agency; and active CSPD involvement would be difficult. Another CSPD officer responded that they were between recruitment projects, but that they believed retention efforts were more important than recruitment efforts.

CSPD officers were next asked to identify the areas of specialization targeted by special education recruitment efforts. The single most frequent response was "all areas," with seven States making this response. Speech and language therapists were identified by CSPD officers in four States. Teachers of students with behavior disorders or emotional disturbance were identified by CSPD officers in three States. Areas targeted by two States each included (a) low incidence areas, (b) early childhood education, (c) autism, and (d) all related services.

One last question regarding recruitment efforts was asked of CSPD officers. CSPD officers confirming that recruitment efforts were underway were asked to rate the level of IHE involvement in those efforts. The perceptions of CSPD officers were fairly evenly divided among the response options. On a seven-point scale, the mean was 4.1 and standard deviation was 2.1.

Monitoring Supply and Demand

Recent regulation changes (34 CFR, Part 300, Sec. 383) would require States' CSPD personnel to collect and disseminate data concerning the number of special education personnel employed by profession or discipline, the number of such personnel who are employed with temporary or emergency certification, current shortages in special education personnel, and five-year projections of special education personnel needs. Personnel trends related to the provision of related services are also included in the new regulations. At the time of survey development and data collection, the new regulations had not yet been approved. Survey questions were designed to assess the nature and extent of CSPD practices for tracking the supply and demand of special education personnel prior to approval of the 1992 regulations. Knowledge of existing practices and problems can guide the implementation of the regulations in all States. States involved in monitoring supply and demand needs at any level were identified in order to facilitate collaboration for the development of a national data base consisting of supply and demand data.

Projections of number of special education personnel needed in 1997. CSPD officers were asked if, using existing data, they had projected the number of special education personnel needed in their States in five years. Separate inquiries were made for special education teachers, administrators, and related services providers. If projections had been made, CSPD officers were then asked to report them.

When responding to questions regarding the number of special education teachers needed by 1997, 38 CSPD officers (76 percent) reported that no such projections had been made; 11 (22 percent) reported that

projections had been made; and one did not provide a response. Of the 11 who reported that projections had been made, only six had actual numbers to share. Therefore, it was not possible to summarize these projections in order to describe the nation-wide needs for special education teachers in 1997. See Table 7 for a listing of the States currently projecting personnel needs five years into the future.

Table 7

States Currently Projecting Total Number of Special Education Personnel Needed in Five Years

States projecting No. of Special Education Teachers	States Projecting No. of Special Education Administrators	States Projecting No. of Related Services Providers
Hawaii	Hawaii	Hawaii
Utah	Utah	Utah
Delaware	Delaware	Delaware
Kansas	Kansas	Kansas
Arkansas	Arkansas	
North Carolina		North Carolina
Michigan		
Florida		
Connecticut		
Ohio		
Wisconsin		

Regarding projections made concerning the number of special education administrators needed in the State in five years, five (10 percent) had projected this need; 43 (86 percent) had not; and two (4 percent) did not respond to this question. Each of the five States for which projections had been made were able to provide the actual numbers; but again, the low number of projections prevented meaningful analysis of this data.

CSPD officers were also asked if they had projected the number of related services personnel who would be needed in their States in five years. The breakdown of responses for this item was the same as for administrators: five (10 percent) had made projections; 43 (86 percent) had not made projections; and two did not respond. Again, the low response rate prevented meaningful analysis or estimates regarding the needs of the Nation.

Many comments regarding the projection of personnel needs were shared during data collection. Representatives of many States reported that they were either in the first year of collecting such data (i.e., South Dakota and Colorado) or were investigating a process for collecting supply and demand information. CSPD officers described seven States as currently developing a process for collecting supply and demand data, including Kentucky, Washington, New Jersey, New York, Nebraska, Iowa, and Mississippi. California will reportedly be monitoring personnel supply soon. Representatives of other States mentioned participating in a regional supply and demand project. In one of these projects, the MISER Northeast Educators Supply and Demand Project, support or related services personnel were not included. The other regional project mentioned was being coordinated through the Western Regional Resource Center. It was

working to develop a model for collecting such data. An additional three States indicated that projections were made for a shorter period of time, either for one year or three years. One CSPD officer stated that five-year projections would be less reliable than three-year projections.

Among the reported difficulties with collecting reliable, accurate supply and demand information were identifying a model or method for doing so; rapidly changing economic or social conditions; and the complexities of cooperating with other agencies of State and local government. Personnel in one State had projected the number of special education teachers needed in five years; but because of a drastic decline in the economy of the State, these projections were no longer valid. The number of teaching and administrative positions in that State were expected to be reduced, as the legislature in that State had recently increased the allowed teacher to administrator ratio in special education. The CSPD officer in another State cited a rapid decline in population for some counties (e.g., as much as a 15-20 percent loss) and school restructuring as factors that make it difficult to project need. CSPD officers in three States mentioned that other agencies within the State government were responsible for collecting some types of supply and demand information, but did not collect the information requested on the survey.

Predicted shortage areas. When asked to list all areas of expected shortage of special education personnel within the next five years, CSPD officers offered multiple responses. Predictions generally reflected the impressions of individual CSPD officers, rather than conclusions based on data. CSPD officers indicated that their impressions were based on (a) discussions with local administrators, (b) personal experience, and (c)

knowledge of initiatives or likely shifts in emphasis for the instruction of students with special needs. Some of the sources used to predict shortage areas included requests for waivers or emergency certification.

Responses were classified, whenever possible, by 1 of the 11 disabilities recognized by Public Law 94-142. It was necessary to add categories to this list, however, in order to more accurately reflect actual needs. For example, many States issue certificates that combine disability areas. If strict use of 94-142 categories had occurred by giving credit to each individual area covered by combined certificates, the actual need for personnel within the individual areas would have been greatly inflated. In addition, States sometimes offer certificates (e.g., early childhood special education) for specialities other than those found in 94-142.

Most frequently, CSPD officers predicted shortages would exist in the related services areas of occupational therapy (25 States), physical therapy (25 States), and speech and language therapy (24 States). One particular area of special education teaching was consistently perceived to be an area of shortage within five years. That area, serious emotional disturbance, was identified by CSPD officers in 23 States. (Refer to Table 6 for a complete listing of categories, and the number of times each was predicted to be an area of shortage by CSPD officers.) Six CSPD officers were unsure about future shortages. One State reported that no shortages were anticipated.

Comments from CSPD officers reflected several themes. First, in five States, shortages of special education personnel were predicted to be highly uneven throughout the State. Regions characterized as offering low salaries, or as being rural, were reported to be at greater risk of experiencing shortages of special education personnel. An increased need

Table 8

Projected Shortage Areas for Special Education and Related Services Personnel

Area of Specialization	Number of States Projecting Shortage	Percentage of States Projecting Shortage
Occupational therapy	25	50
Physical therapy	25	50
Speech/language therapy	24	48
Serious emotional disturbance	23	46
Other	14	28
Specific learning disabilities	13	26
Visual impairment	13	26
Psychologists	12	24
Early childhood education	11	22
Hearing impairments	10	20
Deafness	10	20
Mental retardation	9	18
Deaf-blindness	7	14
Multiple disabilities	7	14
Orthopedic impairments	7	14
Low-incidence areas	7	14
Other health impairments	6	12
Generic special education	5	10
High-incidence areas	4	8

Note. Special education and related services providers were included in this table because they were mentioned by state CSPD officers when responding to an open-ended question. Therefore, although these responses accurately reflect CSPD officers' perceptions, they do not address the full continuium of personnel. Omission of personnel from this list does not necessarily mean that no shortage exists.

for teachers prepared to facilitate the inclusion of special students in general education would become increasingly important, and likely to be an area of shortage, in five States. Specialists needed in other areas of programming were mentioned by other States: assistive technology (1 State), transition (1 State), and bilingual special education (3 States). Meeting the needs of students with autism or traumatic brain injury were each mentioned twice as specialty areas of expected shortage.

Areas of existing shortage. CSPD officers were next asked to list all areas of existing shortage for special education personnel. The same set of categories was used with predicted shortage areas were identified, and again, many of these responses were based on the impressions of CSPD officers rather than on actual data.

Related services providers were most frequently listed as areas of current shortages: occupational therapy (23 States), physical therapy (22 States), and speech and language therapy (22 States). The need for additional teachers of students with serious emotional disturbance (21 States) was also identified. CSPD officers in four States indicated uncertainty regarding the existence of shortages. An additional four reported that no shortages existed in their States. Table 9 displays the categories and the number of times each was identified as a shortage area.

CSPD officers from many States (i. e., 30, or 60 percent) reported that existing and future areas of shortage were similar; but officials in three of those States expected shortages to become increasingly severe. The CSPD officer in one State, however, reported that enough people were enrolled in special education teacher preparation programs to reduce the severe shortages being experienced in rural areas.

Table 9
Existing Shortage Areas for Special Education and Related Services Personnel

Area of specialization	Number of States projecting shortage	Percentage of States projecting shortage
Occupational therapy	23	46
Physical therapy	22	44
Speech/language therapy	22	44
Serious emotional disturbance	21	42
Specific learning disabilities	14	28
Deafness	10	20
Hearing impairments	10	20
Visual impairments	10	20
Mental retardation	9	18
Low-incidence areas	9	18
Early childhood special education	9	18
Orthopedic impairment	8	16
Other	8	16
Deaf-blindness	7	14
Psychologists	7	14
Multiple impairments	6	12
Other health impairments	6	12
High-incidence areas	4	8
Generic special education	2	4

Note. Special education and related services providers were included in this table because they were mentioned by state CSPD officers when responding to an open-ended question. Therefore, although these responses accurately reflect CSPD officers' perceptions, they do not address the full continuium of personnel. Omission of personnel from this list does not necessarily mean that no shortage exists.

Collaboration with IHEs

CSPD officers were asked to describe the nature and extent of their collaboration with IHEs. Questions addressed collaboration with IHEs for the purposes of (a) recruiting special education personnel and (b) developing or revising preservice special education training programs.

First, CSPD officers in those States engaged in organized recruitment efforts were asked to rate the extent to which IHEs were actively involved in those efforts. Possible ratings ranged from 1 (very little) to 7 (very much). The mean rating on this item was 4.1 (SD = 2.1). Responses were not obtained for 10 States.

Second, respondents were asked if their States' CSPD had a formal means of gathering information from IHEs regarding the development, review, and modification of preservice special education preparation programs. CPSD officers in 40 States (80 percent) responded affirmatively to this question, six (12 percent) responded negatively, and four (8 percent) provided no answer to this question. Those individuals responding affirmatively were then asked about the format for that collaboration. A list of choices for describing interaction formats was presented to them. Respondents were asked to confirm all formats that applied to their respective States and to identify those that did not apply. In addition, they were asked to add any format for collaborating with IHEs that they used which was not included on the list. Table 8 lists these formats for IHE involvement and the frequency with which each is used.

Finally, CSPD officers were asked to rate their perceptions of the extent to which IHEs used needs assessment data generated by the CSPD when developing, revising, or modifying preservice special education personnel training programs. Possible ratings ranged from 1 (very little)

to 7 (very much). Mean response to this item was 3.5 (SD =1.8). Six CSPD officers did not respond to this item.

Table 10
Formats for SEA/CSPD and IHE Collaboration About Special Education Preservice Preparation Programs

Format for Collaboration	Number(Percent) of States Where Format is Used	Number(Percent) Where Format is Not Used
State CSPD advisory group	39(80)	1 (2)
Professional organization	18(36)	18(36)
Personal communication	30(60)	7 (14)
Task forces to consider special topics	27(54)	10(20)

Note. Percentages do not add to 100 because of missing data. Nonresponses to an individual format were coded as missing, rather than inferring that nonresponse indicated that the format did not exist.

Several CSPD officers commented on their ratings of the extent to which IHEs use CSPD needs assessment results to plan, develop, or modify teacher preparation programs in special education. Of the 13 CSPD officers who commented on this item, four expressed optimism that the extent to which IHEs used CSPD results was increasing. CSPD officers in four States clearly expressed dissatisfaction with IHE involvement. Officers in these States expressed a strong need for teachers prepared to fulfill collaboration-based positions, to write high quality IEPs, to work in teams, to use assistive technology, or to aid youth in the transition from school to adult life.

Discussion

Two separate, but complementary, surveys were sent to chief State certification officers and CSPD officers in each of the 50 States and the District of Columbia. Conclusions and implications will first be presented separately, followed by a list of conclusions and recommendations based on an integration of results.

Discussion of Certification Data

Certification officers were asked to describe requirements and procedures for initial certification and emergency certification in special education teaching. Certification officers were also asked to provide (a) the numbers of initial and emergency certificates issued by area of specialization during the 1990-91 year, and (b) the number of individuals receiving those certificates. Analysis of these data revealed factors that would seem to have an impact of the supply of, and future demand for, special education teachers.

Trends in Requirements for Initial Certification

Requirements for initial certification as a special education teacher were identified. Five requirements were found to exist in a majority of States. Attainment of a college degree, completion of an approved IHE teacher preparation program, and experience working with students in a classroom were required in all States. Passage of a basic skills exam was required in 75 percent of States, and passage of either a specialty area exam or an examination of teaching-related content was required in 52 percent of States. These percentages were consistent with other recent

research identifying certification requirements in special education (Berkeley, 1990; Ramsey & Algozzine, 1991).

Current requirements reflected recent changes in certification. Over half of the State certification officers reported that requirements for initial certification in special education teaching had changed within the last five years. Most frequently, increased certification requirements were reported (i.e., added requirements for specific courses, basic skills tests, or tests of specialty-area or teaching-related knowledge).

Requirements for initial certification have changed, but changes in special education teacher certification are likely to continue. Among State certification officers, 60 percent anticipated changes would occur within the next five years, and at least two trends were observed in their descriptions of likely changes in special education certification. These trends are described in the following paragraphs.

Certificates for special education teaching have been described as highly categorical despite contrary self-reports by States (Berkeley, 1990). In most cases, States describing themselves as having noncategorical (i.e., generic) certificates had added noncategorical, or multicategorical, certificates to existing certification options. State certification officers who were interviewed for this study, and who expected changes in special education certification, most frequently predicted that a shift would occur from highly categorical to less categorical certificates. Specifically, certification officers in 10 States anticipated that certificates would become more generic.

The rationale for shifting from categorical to more generic certification options was expressed by some certification officers. The rationale included allowing local districts to more easily accommodate the

rapidly shifting populations of students. In addition, numerous other educators have concluded that special education categories are artificial, having little value for educational planning because differently categorized children frequently have similar educational needs while similarly categorized children might have very different educational needs (Gartner, & Lipsky, 1989; Wang, Reynolds, & Walberg, 1986; Ysseldyke, 1987; Ysseldyke, Thurlow, Graden, Wesson, Algozzine, & Deno, 1983). Given this situation, differential requirements for teacher certification by disability area were apparently being reconsidered. It might indeed be efficient and effective to issue multicategorical certificates, where core knowledge and competencies needed by special education teachers are emphasized. Movement toward more generic certification would be consistent with (a) the belief that effective teaching practices are useful across multiple settings and with diverse students, and (b) with respect for individualized planning (e.g., the belief that teaching practices should be selected on the basis of individual, rather than group, characteristics).

From this feedback, it would appear that discussions should occur regarding the relative merits of categorical and more generic systems of certification. Implications for the quality of beginning special education teachers under a changed certification structure are especially critical. To the extent that a common knowledge base and core of competencies can be identified, then the shift would not be likely to diminish teacher quality. However, existing teacher preparation programs may differ with regard to the amount of effort spent developing specific core competencies or attitudes in students intending to work with children having different educational labels. Sets of competencies and attitudes may also be specific to one or a few areas of specialization. Planning would be needed to (a)

maintain quality standards and (b) determine how to combine or restructure special education certificates.

One additional consideration is relevant to the discussion of replacing highly categorical certification systems with fewer certificates of a more generic nature. It might be that novice teachers have insufficient ability to generalize skills learned in one teaching context to another, or to modify their teaching based on child characteristics (Blackbourn & Baum, 1986). Changes in teacher preparation would appear necessary to accompany this shift in certification. Thus, a shift from highly categorical to more generic certification structures would impact agencies involved with the preparation of high quality teachers. Collaboration among representatives of State education agencies, local education agencies, and IHEs would allow all stakeholders to contribute to designing a more generic certification system that would continue to promote high quality beginning teaching.

A second trend associated with special education certification was noted in the perceptions of certification officers. That is, two certification officers reported that their States were actively engaged in identifying which competencies needed by special education teachers to include with certification requirements, and which assessment methods to use for verifying candidate mastery of those competencies. The actions of personnel in two States do not, in isolation, comprise a trend; but one of these States belonged to a regional, multi-State committee which was studying the issue. Although only eight States now require verification of specific competencies for certification of special education teachers, this requirement could become more prevalent in the 1990s.

Competency expectations for certification must allow beginning teachers to meet unique educational needs of students. Craft-Tripp (1990)

identified four broad areas of competencies needed by special education teachers. In an exhaustive review of what is known about beginning teaching, Reynolds (1992) identified seven competencies which might be used as a basis for certifying general education teachers. The seven competencies suggested by Reynolds might also be expected of special education teachers, especially given the current emphasis on greater collaboration among general and special education teachers. Reynolds cautioned, however, that insufficient understanding of what constitutes effective beginning teaching exists to confidently tie certification requirements to demonstrations of competency. Policy makers interested in implementing competency-based certification must make many decisions regarding what competencies separate effective from ineffective beginning special education teachers, and which competencies distinguish effective novice teachers from effective experienced teachers. It will be necessary to separate core competencies (e.g., writing behavioral objectives or writing lesson plans) from specialty competencies (e.g., writing and reading braille). As an example, the State of California undertook a study to identify and distinguish between core and specialty competencies needed by special education teachers (Raske, Schrup, Wood, & Plummer, 1991). In addition, the Council for Exceptional Children identified a set of 102 core competencies for beginning special education teachers (Swan & Sirvis, 1992). The CEC competencies were classified either as knowledge or skills. After identifying necessary competencies, policy makers must determine how many of them can reasonably be assessed, which are most worthy of assessment, and how to conduct a valid assessment of a candidate's competencies for certification purposes.

To measure competencies directly would be time consuming and require some type of performance assessment. According to NASDTEC (1991), some States do indeed include performance assessment in the certification process, although exactly how that assessment is conducted was not specified. Direct observation of teacher candidates' skills would be one example of performance assessment. This observational method could accompany supervision and evaluation during the student teaching process. Alternately, observation could occur during the first year of teaching, before full certification was granted (Rudner, 1988). Review and evaluation of student portfolios (i.e., compilations of student work samples from throughout a teacher preparation program) might be another alternative. Currently, some States require an IHE supervisor to verify candidate competencies in writing (NASDTEC, 1991). Specialty area examinations are less direct measures of candidates' skills; but they would accommodate the measurement of a larger number of competencies, perhaps in a shorter period of time.

Support for competency-based teacher preparation programs and for measurement of competencies for teacher certification was evident in the 1980's, although most of the earliest tests were designed to measure basic, rather than professional, skills (Lehmann & Phillips, 1987; Rudner, 1988; & Sanders, 1985). The use of basic skills and specialty area examinations as certification requirements became widespread during that decade. Ramsey (1988) and Ramsey and Algozzine (1991) identified 10 categories of objectives that specialty area examinations in special education were designed to measure. Policy makers must consider the possible duplication of efforts between already existing specialty area examinations and newly proposed measures of specific competencies.

Movement toward measurement of candidate competencies for teacher certification has several possible implications for teacher preparation programs and for teacher supply and demand. The specification of competencies could promote increased standardization among IHE teacher preparation programs and among student teaching experiences. Alternately, Sanders (1985) suggested that competency measures might allow for development of an alternate route to teacher certification, one which would allow graduates of nonteaching college programs to become certified. The use of alternate certification procedures might greatly increase the pool of possible teachers, allowing college graduates to more easily choose education as a second career choice. It might also reduce the numbers of students in teacher preparation programs by allowing them to train for an alternate career choice, relying on teaching as a backup career. A related issue was raised by the Council for Exceptional Children when the 1989 Delegate Assembly decided to encourage States to adopt competency-based procedures when granting interState candidates certification through reciprocity (Swan & Sirvis, 1992).

Alternate Routes to Initial Certification

Multiple routes to initial certification were evident among the States in this sample, but the impact of these options on the supply of special education teachers is likely to be small. Options do exist for waiver of certification requirements (a) on an individual basis, (b) through reciprocity, and (c) through other procedures for allowing certification without meeting one or more of the usual requirements.

Certification officers in 44 percent of States reported that some individual or group had the authority to waive certification requirements on an individual, or case-by-case, basis. Most frequently, however, this authority was given to a State superintendent, to a board of education, or to a certification board.

InterState certification agreements were in existence in slightly more than half of the States. In addition, States granting certification through reciprocity were, on average, participating in interState certification agreements with 22 other States. The potential for shifting personnel from one State to another is great with these agreements, but only if individuals are willing to move. Future studies pertaining to the movement of teachers across State lines could provide much needed information on the impact of reciprocity on teacher supply.

Usual certification requirements remained largely intact when alternate procedures to initial certification were employed. Three exceptions were noted, however. Possession of an elementary or secondary certificate, completion of an IHE program in the specialty area, and passage of a specialty area examination were three of the usual requirements for initial certification that were most likely to be dropped under alternate certification procedures.

Emergency Certification

Forty-three of 51 States reported to NASDTEC (1991) that some type of emergency certification was available. In addition, one State had added emergency certification since 1990; and personnel in at least two additional States reported the issuance of waivers to districts for hiring a temporary teacher, rather than issuing emergency certification to

individuals. Options for emergency or temporary placement of underqualified personnel are prevalent, supporting the conclusion that a shortage of special education personnel exists in the United States.

The duration of emergency certification is one year or less in 71 percent of States where it is available. In most States, these certificates are renewable. However, many States require that personnel demonstrate yearly progress toward qualifying for full certification to renew or extend emergency certification. This requirement adds a recruitment function to the original purpose of emergency certification. Recruitment interests might be well served by getting instructional personnel into special education classrooms more quickly and by subsidizing and supporting their studies in teacher preparation programs through the provision of a salary and experiences directly related to their areas of teaching interest. Perhaps some individuals might take an emergency teaching position, and, consequently, choose to pursue a career in special education teaching.

By definition, emergency certificates are issued to candidates who have not yet met all of the usual requirements for initial certification. Certification officers were asked to report which of the usual certification requirements could remain unmet by candidates receiving emergency certification. Since many States issue more than one type of emergency or temporary certificate, certification officers were asked to consider all types when responding. Based on their responses, no single requirement was necessary for emergency certification in all States; that is, all of the usual requirements of special education teaching were susceptible to being waived for emergency certification purposes.

Number of Certificates Issued during 1990-91

Less than half of State certification officers reported the number of initial and/or emergency certificates issued during a one-year period of time. Fewer yet provided a breakdown of certificates issued according to category, or area of specialization. A very small number reported the number of individuals to whom initial certificates were issued during that year. Certification officers frequently Stated that these statistics were not routinely kept and that limited manpower prevented them from making a special effort to retrieve the information from computer files. Based on the limited response, any conclusions or projections relating to teacher supply must remain tentative. Accurate data collection relating to the supply of special education personnel would depend on access to complete and accurate information.

One-third of all certificates issued were of an emergency or temporary nature, supporting the existence of an ongoing, severe, shortage of special education teachers in the Nation. However, the ratio of emergency to initial certificates remained consistent with previous years (McLaughlin, Smith-Davis, & Burke, 1986; NASDSE, 1990). In some States, the shortage was severe, while the shortage was nonexistent in other States. Considering area of specialization, shortfalls of teachers were indicated for nearly all special education categories.

Discussion of CSPD Data

At the time of data collection, recent changes to CSPD regulations (34 CFR, Part 300, Sec. 380-383) were being reviewed, but had not yet been approved. Therefore, State CSPD officers were asked to describe

procedures and comment on their expectations for future directions in CSPD relative to responsibilities that had not yet been assigned to them.

Recruitment of Personnel into Special Education

CSPD officers offered a wide range of predictions about their abilities to implement the then proposed regulations on recruitment. Slightly more than half of the States in this study were already involved in some types of recruitment efforts, and collaboration with other educational entities was occurring. More States were involved with recruiting outsiders into special education than were actively encouraging special education paraprofessionals to become fully certified as teachers. In contrast, some CSPD officers reported that recruitment was not a priority in their State, that their States' finances would prohibit the addition of any new programs, or that other departments or agencies were responsible for recruitment. These barriers are likely to continue despite the passage of the new regulations--making implementation difficult.

Few trends regarding the types of individuals or the types of certification areas targeted for recruitment were noted among States. When asked to describe the characteristics of individuals who were targeted by recruitment efforts, CSPD officers most frequently cited minorities, high school students, regular education teachers, and individuals living in rural areas. Individuals having each of those characteristics were targeted by five to seven State plans, however. Regulations approved in 1992 specify that minorities and persons with disabilities should be encouraged to become special education teachers in all States. When asked to identify areas of certification for which recruitment efforts were developed, CSPD officers gave a wide variety of

responses. Sometimes, these decisions were made locally, or regionally, and not by the State. When State-wide initiative did occur, the most frequent response by CSPD officers was "all areas." Prior to implementation of the new regulations, many State CSPD programs neither contained, nor were expected to contain in the near future, a plan to recruit more people into the special education field. Additionally, recruitment plans existing prior to implementation of the new regulations were relatively unfocused. This will likely change as State plans are amended to be in compliance with 1992 regulations.

Monitoring Supply and Demand

Prior to the approval of the new regulations, few State CSPD officers could project the total number of special education teachers, administrators, or related services providers which would be needed in their States five years ahead. Projections were provided for so few States that it was not feasible to predict the number of special education and related services personnel needed nationwide. However, personnel in several States were working to develop a model for collecting the data needed to make five-year projections. CSPD officers offered feedback regarding the status of personnel monitoring in their States. This feedback contains insights into the process and is summarized below.

CSPD officers identified barriers to making projections. The first barrier was the lack of a clear model for monitoring supply and demand needs in special education. Several State CSPD officers expressed interest in receiving technical assistance to solve this problem. Other State CSPD officers cited difficulties working with other State departments as impairing their efforts to monitor the supply and demand of special

education teachers. Outside factors also had an impact on projections. Sharp downturns in the economies and populations of several States had made projections difficult to make. Perhaps through inter-State collaboration one or more models for reliable data collection could be developed. States where projections had already been made, or where active involvement with developing a model was reported, were listed in Table 5 for the purpose of facilitating such collaboration.

Given the lack of a model for data collection, it was not surprising that CPSD officers' descriptions of current and expected shortages of special education personnel were generally based on impressions, not data. Their impressions were reportedly based on personal experiences, their knowledge of State initiatives, and interactions with district administrators.

Based on the impressions of CSPD officers, the areas of greatest personnel shortage were those associated with the broad area of related services. Occupational therapy, physical therapy, and speech and language therapy topped the list of shortage areas; they were identified both as current and future shortage areas. The major need for special education teachers, specifically, teachers of students having emotional disturbance or behavior disorders, was identified as a shortage now and in the future. All of the above categories were cited by CSPD officers in 40 to 50 percent of the States, and few differences were noted between current and projected shortage areas. Shortages of related services providers and of teachers for students with emotional disturbance have been reported in previous research (McLaughlin, Smith-Davis, & Burke, 1986; Smith-Davis, Burke, & Noel, 1984).

Generic certifications were also cited as shortage areas by CSPD officers. When projecting future shortage areas in special education, CSPD officers volunteered four types of combined certification; namely, multiple disabilities, low-incidence areas, generic special education, and high-incidence areas. These areas were listed as anticipated shortages in 8 to 14 percent of States. When reporting current shortages, the percentages of States reporting each ranged from 4 to 18 percent. Considered separately, none of these generic classifications represented a trend; but, when combined, these classifications demonstrated interest in additional personnel having more generic or multicategorical certifications.

Collaboration with IHEs

State CSPD officers were asked to rate their impressions of the extent of collaboration with IHEs in two areas: (a) recruitment and (b) program development or modification. CSPD officers reported very little IHE involvement to very much IHE involvement with almost equal frequency. When dissatisfaction was expressed, CSPD officers suggested that IHE programs must emphasize skills related to working with students and teachers in integrated settings, rather than in self-contained classrooms.

Major Conclusions and Recommendations

Conclusions were previously drawn from a separate analysis of Parts 1 and 2 of the survey. Conclusions and recommendations discussed in this section reflect a desire to synthesize results. Major conclusions and corresponding recommendations were ordered to the greatest extent possible in the same way as the issues were addressed throughout the rest of the report. However, some diversion from the pre-established pattern

was required in order to consider them in a logical way. Conclusions are presented first, in bold type, immediately followed by related implications or recommendations.

1. The proportion of certificates issued on an emergency basis (i.e., one-third) and the impressions of CSPD officers offered evidence that a nation-wide shortage exists for special education and related services personnel, though the severity of that shortage has remained constant. Shortages were prevalent across most areas of specialization, but not across all States. Thus, recruitment efforts outlined in new CSPD regulations appear to address a real need, and could provide the impetus needed to reduce the shortages.

- Officials in States experiencing shortages might use the new CSPD regulations as a tool to raise the priority of this issue in their respective SEAs, and to inspire others to overcome existing barriers that inhibit the implementation of recruitment plans. (Ideas for recruitment are listed in the Results section of this report.)
- Officials in States experiencing no shortages of special education and related services personnel might emphasize the recruitment of minorities, or persons with disabilities, into specified areas of service.

2. Evidence provided by SEAs was insufficient for drawing firm conclusions about the severity of a nation-wide personnel shortage. Data needed to make accurate and complete judgments about need were either not collected by State-level personnel, or

could not be retrieved from existing data bases because of the time restrictions they faced.

- Accurate, yearly State-level data collection regarding certificates issued by area of specialization would be necessary for making informed decisions about teacher supply and demand at the national level. Further, data should be stored in a manner that would allow for sorting the certificates according to the individuals to whom they were issued.
- State departments of certification and special education (i.e., from where CSPD programs typically originate) might pool their resources to collect and analyze the data needed to accurately monitor the supply of special education teachers and related services personnel.
- Alternately, data collection and analysis related to monitoring the supply and demand of special education and related services personnel could be managed through contracting with outside agencies or individuals. State departments of education sometimes have research divisions to perform tasks like these. Granting a small fee to an outside contractor might also be an efficient way to collect such information.
- A reallocation of resources from other CSPD initiatives will be needed to collect supply and demand data without additional Federal support.

3. Emergency certification was determined to be more likely to affect the supply of special education teachers than was initial certification through alternate routes. Alternate routes to initial certification appeared to be oriented more toward building flexibility into the certification process than toward increasing the numbers of individuals available to teach--a

conclusion shared by Bradley (1990). However, all of the usual requirements for initial certification could possibly be waived to issue emergency certificates in at least some States. In many States, emergency certification appeared to perform a function similar to recruitment.

- Options for emergency certification were abundant, and might be necessary, short-term, solutions to a shortage of special education and related services personnel.
- By requiring evidence of progress toward full certification as a requirement for renewing emergency certificates, policy makers were allowing prospective teachers to get into classrooms more quickly. However, the relationship between emergency certification and teacher retention is unclear; so it remains unknown whether or not this practice will have the long-term effect of expanding teachers' years of service. Research is needed to document the experiences and retention of teachers hired on an emergency basis.
- Despite an abundance of options, OSEP policy strongly discourages relying on emergency certification to meet personnel needs. Federal regulations (34 CFR, Part 300, Sec. 153) require that personnel meet the highest standards in the state, a criterion that emergency certified personnel do not meet. Thus, OSEP has begun requiring State plans to address eliminating the need for emergency certification.

4. In at least one area, the expectations of State certification officers and CSPD officers were in agreement. The strongest trend anticipated for special education certification in the near future was moving from a highly categorical system to a more

generic certification system. Likewise, CSPD officers reported current and expected shortages in four areas of multicategorical classifications (i.e., low-incidence areas, multiple disabilities, high-incidence areas, and generic special education).

- The observation that State certification and CSPD officers shared an interest in revising the structure of special education certification provided an opening for greater collaboration among members of their respective departments. Collaboration on this issue might ease collaboration on other issues.

- The movement toward a more generic system of certifying teachers should be accomplished in a way that would insure high quality teachers. It might ease the demand for teachers somewhat by allowing teachers to be more easily shifted from one position to another, or by allowing teachers to more easily serve children having more than one disability. Hence, it might also contribute to eliminating the need for emergency certification of special education personnel.

- IHEs that provide for the preparation of teachers and LEAs that provide field experiences to prospective teachers and employ teachers have a large stake in the shift toward more generic certification systems. They should be included in the planning.

5. Prior to implementation of the current CSPD regulations, recruitment efforts varied greatly from State to State. Slightly over half of the plans contained recruitment efforts that were geared toward individuals with specific characteristics, or toward particular areas of specialization.

- Expansion of, and increased structure in, recruitment efforts is likely to occur as States work toward compliance with the revised CSPD regulations.

- Personnel from States previously engaged in recruitment efforts might assist those who were not. At a minimum, the descriptions of existing initiatives presented in the Results section of this report might provide a starting point for considering this new requirement.

6. Prior to implementation of the current CSPD regulations, few State CSPD officers could provide five-year projections of the number of special education and related services personnel that may be needed in their States. Specific needs were identified that would facilitate the implementation of this requirement. Barriers to implementation were also identified.

- The need for technical assistance was frequently mentioned. Most frequently, CSPD officers reported the need for a model to use when collecting supply and demand data. Technical assistance might come from an outside agency or individual. Alternately, State personnel could form partnerships to develop models most suitable to their own needs.

- The need for financial assistance, or at least a reallocation of existing funds, was inferred from reported barriers to data collection.

- The uncertainty associated with the economy and population shifts in many States has made some projections invalid by drastically altering the demand for special education and related services personnel.

- These projections will become increasingly important as recruitment efforts are developed within more State CSPD programs.

7. CSPD staff will be at least partly dependent on State certification departments in order to accurately monitor the supply of special education personnel. At this time, major obstacles make this collaboration difficult.

- State certification departments did not routinely keep data regarding the number of certificates issued by areas of specialization. Certification officers expressed pessimism regarding their ability to dedicate the manpower necessary to perform this task.
- The separation of authority and responsibilities among different agencies or departments within the States' educational bureaucratic structures was reported to impede collaboration among staff members on matters of common needs and interest. Thought to be exaggerating the effects of the separation of authority and responsibility were differing, and sometimes conflicting, goals, priorities, and procedures.

8. To fully implement the current CSPD regulations would require increased cooperation among personnel from State certification offices, local districts, CSPD components of State special education departments, and institutions of higher education. Current levels of collaboration between SEAs and IHEs were described by CSPD officers as being highly variable. Several areas for collaboration were identified.

- Monitoring the supply and demand of special education and related services personnel, and sharing those data, will need to be increased at the CSPD, LEA, and IHE levels. Such cooperation is included in the regulations associated with 34 CFR, Part 300-399 of the Individuals with Disabilities Education Act Amendments of 1991. When requesting

funds for personnel preparation grants, IHE applications are evaluated according to specific selection criteria under CFR 318.22, and two of those criteria state that applicants must present data supporting a critical need for additional personnel. These criteria, "Impact of Critical Present and Projected Need" and "Capacity of the Institution," may be met through (a) citing CSPD, Clearinghouse on Careers and Employment of Personnel, or other relevant sources of data on personnel need; and (b) documenting collaboration with SEAs, the State-designated lead agency under Part H of the Act, other IHEs, and public or private agencies dedicated to serving students with disabilities. Furthermore, when combined, these criteria account for more than 50 percent of the points needed for obtaining Federal funding for personnel preparation grants.

- Recruitment of new personnel into the fields of special education and related services will need to be developed and expanded. This must occur in order to eliminate current dependence upon emergency certification and to comply with revised CSPD regulations.

- Restructuring of certificates and revision of certification requirements in special education and related services is likely to be continued and accelerated--requiring increased collaboration among professional staff at all levels. Should the predicted trend of combining separate certificates into multicategorical certificates occur, the collaboration of IHE, LEA, and SEA personnel would be valuable. IHE personnel could assist with identifying and discriminating between core competencies (i.e., for special or general education teachers) and specialized skills needed by teachers of students with disabilities. LEA personnel could contribute by suggesting which combinations of categories and which teacher competencies would be most important to emphasize.

- Development and revision of programs for the preparation of special education and related services personnel would benefit from increased collaboration between IHE and SEA personnel. This would be especially true if special education certificates were restructured as described by the certification personnel interviewed in this study.

Summary

Data in this report were obtained through separate surveys of chief State certification officers and State CSPD officers in the United States. Each group of policy makers was asked to report on practices and predictions related to the supply and demand of special education and related services personnel. Results were considered within the context of recently approved Federal guidelines that expand the responsibilities associated with State CSPD plans. Issues of common interest between certification and CSPD personnel were identified, and areas for collaboration between SEA, LEA, and IHE personnel were recommended.

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APPENDIX A

State Certification and Personnel Monitoring Practices for Special Education

Information regarding the State of _____

Date: _____

Name of person providing information: _____

Definition of Initial Certificate

For the purpose of this survey, an *initial certificate* is the first certificate issued to all teachers in the state. An initial certificate is the lowest level certificate an individual can receive to teach in your state. It means that the individual has met the requirements to be a beginning teacher in a specified area of expertise.

Definition of Emergency Certificate

An emergency certificate is a short-term permit issued to an individual who does not meet the basic requirements for an initial certificate in a teaching area. Refer to page J-1 of the NASDTEC publication Manual on Certification and Preparation of Educational Personnel in the United States (NASDTEC, 1991) for further clairfication of the emergency certificate. For the purpose of this survey, Substandard, Limited or Emergency Certificates Authorizing Long-term Substitute Teaching shall be viewed as temporary or emergency certification in special education.

Definition of Institution of Higher Education (IHE)

An institution of higher education (IHE) is any post-secondary educational institution which offers a preservice teacher preparation program leading to certification. In many cases, the IHE is a college or university, but this need not always be the case. Other organizations might also prepare teacher candidates for certification in specific fields.

Part A: Certification Information

1. Have requirements for initial certification as a special education teacher changed in this state during the last 3-5 years? _____Yes _____No

If yes, please describe how certification requirements have changed. Check the appropriate column to indicate if the items below have been *added* to the requirements for initial certification in special education teaching, *deleted* from the requirements for initial certification in special education teaching, or *remained unchanged* as requirements for initial certification in special education teaching.

Requirement	Added	Deleted	Unchanged
Master's Degree or 5-year program	_____	_____	_____
Bachelor's Degree	_____	_____	_____
Basic Skills Test	_____	_____	_____
Specialty Area Test	_____	_____	_____
Specified Grade Pt. Average	_____	_____	_____
Specified Course Work	_____	_____	_____
Assurance of Specific Student Competencies	_____	_____	_____
Elementary or Secondary Certificate	_____	_____	_____
Completion of Approved IHE Program in Specialty Area	_____	_____	_____
Practicum or Student Teaching	_____	_____	_____
Other, please specify:	_____	_____	_____

2. Do you anticipate the requirements for initial certification as a special education teacher will be revised within the next 3-5 years? _____Yes _____No

If yes, what changes in initial certification would you expect to be considered?

3. Is anyone in your state empowered to waive requirements for initial certification on a case by case basis? _Yes _____No

If yes, what is the title held by that individual?

4. Is it possible for an individual to obtain *initial certification in special education teaching* without meeting any or all of the following requirements? *Yes* is the appropriate answer if an individual can obtain an initial certificate without having that item. *No* is the appropriate choice when a requirement cannot be waived. *N/A* is the correct choice when the item listed is not required for initial certification.

Requirement	Yes	No	N/A
Master's Degree or 5-year program	_____	_____	_____
Bachelor's Degree	_____	_____	_____
Basic Skills Test	_____	_____	_____
Specialty Area Test	_____	_____	_____
Specified Grade Pt. Average	_____	_____	_____
Specified Course Work	_____	_____	_____
Assurance of Specific Student Competencies	_____	_____	_____
Elementary or Secondary Certificate	_____	_____	_____
Completion of Approved IHE Program in Specialty Area	_____	_____	_____
Practicum or Student Teaching	_____	_____	_____
Other, please specify:	_____	_____	_____

5. Is it possible for an individual to obtain an emergency certificate when lacking the following items? *Yes* is the appropriate answer if an individual can obtain a temporary certificate without having that item. *No* is the appropriate choice when a requirement must be met at the time the emergency certificate is issued, not met during the probabionary period. *N/A* is the correct choice when the item listed is not required for initial certification.

Requirement	Yes	No	N/A
Master's Degree or 5-year program	_____	_____	_____
Bachelor's Degree	_____	_____	_____
Basic Skills Test	_____	_____	_____
Specialty Area Test	_____	_____	_____
Specified Grade Pt. Average	_____	_____	_____
Specified Course Work	_____	_____	_____
Assurance of Specific Student Competencies	_____	_____	_____
Elementary or Secondary Certificate	_____	_____	_____
Completion of Approved IHE Program in Specialty Area	_____	_____	_____
Practicum or Student Teaching	_____	_____	_____
Other, please specify:	_____	_____	_____

6. Which of the following procedures are required to teach on a temporary certificate? Please check *all* that apply.

_____ Written plan for meeting individual's deficiencies
_____ Completion of specified number or percentage of usual requirements
_____ Recommendation by state-approved IHE program which grants entitlements
_____ Request or verification by hiring agent (e.g., supt.) wishing to hire applicant
_____ Other, please specify:

7. A review of your state's certification guidelines showed that the following initial certificates or endorsements in special education teaching were available in 1990-91 in your state. First, verify that each is accurate by placing a check mark in the column asking about the existence of an initial certificate. Make corrections to the list of categories as needed. Extra rows have been provided for this purpose. Second, for each category, provide the information requested in the last two columns.

Categories or classifications for certification or endorsement in special ed.	Initial certification exists	Number of initial certificates/ endorsements issued in 1990-91 school year (90/91)	Number of emergency certificates/ endorsements issued in 90/91

Since teachers often become certified in more than one area of specialization, did you count the total number of *individuals* (as opposed to certificates) who received certification or endorsement (temporary, initial, or advanced) in 1991? _____Yes _____No

a. If yes, what was the *total number of individuals* who were granted special education certificates or endorsements in 1991? _____individuals

b. How many of the people were granted special education *initial* certificates or endorsements in 1991?_____individuals

c. How many of those individuals receiving special education certificates or endorsements in 1991 *had never been certified to teach in your state or in any other state?*_____individuals

State Certification and Personnel Monitoring Practices for Special Education

Information regarding the State of _____

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Part B: CSPD Information

1. Has your State Education Agency/Comprehensive System of Personnel Development (SEA/CSPD) established a process for enabling teachers' aides or other paraprofessionals to become certified as special education teachers? _____Yes _____No

   If no, do you anticipate the implementation of such a process within 3-5 years? _____Yes _____No Why or why not?

2. Using existing data, have you projected the total number of special education teaching personnel that will be needed in your state in the next 5 years? _____Yes _____No

   If yes, what is the projected number of special education teachers needed in your state in 5 years? _____special education teachers

3. Using existing data, have you projected the total number of special education administrative personnel that will be needed in your state in 5 years? _____Yes _____No

   If yes, what is the projected number of special education administrators needed in your state in 5 years?_____special education administrators

4. Using existing data, have you projected the total number of support or related service personnel that will be needed in your state in 5 years? _____Yes _____No

   If yes, what is the projected number of support or related services providers needed in your state in 5 years?_____support or related services providers

5. Please list expected areas of special educational personnel shortage within the next 5 years.

6. How do the areas of expected shortages of special education personnel listed above compare to current shortage areas?

7. Is the SEA/CSPD engaged in any organized efforts to recruit new special education teachers?
_____Yes _____No

If yes, please describe the demographic characteristics of any group(s) which has been targeted by recruitment efforts.

If yes, please list areas of teaching specialization for which those recruitment efforts are underway.

If yes, to what extent are IHEs actively involved with these recruitment efforts?

Very Little 1 . . . . . 2. . . . . 3. . . . . 4 . . . . . 5 . . . . . 6 . . . . . 7 Very Much

8. Does your SEA/CSPD have a formal means of seeking input from IHEs regarding needs related to the development, review, and modification of preservice special education personnel preparation? Yes or No_____

If yes, what is the format or vehicle for IHE input? Check the appropriate response to each.

State CSPD advisory group	Yes or No
Professional organization	Yes or No
Personal communication	Yes or No
Task forces to consider special topics	Yes or No
Other, please specify:	

9. To what extent do you believe IHEs use SEA/CSPD needs assessment results to develop, review, and modify preservice training programs in special education?

Very Little 1 . . . . . 2. . . . . 3. . . . . 4 . . . . . 5 . . . . . 6 . . . . . 7 Very Much

APPENDIX B

FEDERAL REGISTER Vol. 57, No. 189
Tuesday, September 29, 1992
Rules and Regulations*

§ 300.153 Personnel Standards

(a) As used in this part:

(1) "Appropriate professional requirements in the State" means entry level requiremets that--

(i) Are based on the highest requirements in the State applicable to the profession or discipline in which a person is providing special education or related services; and

(ii) Establish suitable qualifications for personnel providing special education and related services under this part to children and youth with disabilities who are served by State, local, and private agencies (see § 300.2).

(2) "Highest requirements in the State applicable to a specific profession or discipline" means the highest entry-level academic degree needed for any State approved or recognized certification, licensing, registration, orother comparable requirements that apply to that profession or disipline.

(3) "Profession or discipline" means a specific occupational category that--

(i) Provides special education and related services to children with disabilities under this part;

(ii) Has been established or designated by the State; and

(iii) Has a required scope of responsibility and degree of supervision.

(4) "State approved or recognized certification, licensing, registration, or other comparable requirements" means the requirements that a State legislature either has enacted or has authorized a State agency to promulgate through rules to establish the entry-level standards for employment in a specific profession or discipline in that State.

(b) (1) Each State plan must include policies and procedures relating to the establishment and maintenance of standards to ensure that personnel necessary to carry out the purposes of this part are appropriately and adequately prepared and trained.

(2) The policies and procedures required in paragraph (b)(1) of this section must provide for the establishment and maintenance of standards that are consistent with any State approved or recognized certification, licensing, registration or other comparable requirements that apply to the profession or discipline in which a person is providing special education or related services.

(c) To the extent that a State's standards for a profession or discipline, including standards for temporary or emergency certification, are not based on the highest requirements in the State applicable to a specific profession or discipline, the State plan must include the steps the State is taking and the procedures for notifying public agencies and personnel of those steps and the timelines it has established for the retraining or hiring of personnel to meet

appropriate professional requirements in the State.

(d) (1) In meeting the requirements in paragraphs (b) and (c) of this section, a determination must be made about the status of personnel standards in the State. That determination must be based on current information that accurately descripbes, for each profession or discipline in which personnel are providing special education or related services, whether the applicable standards are consistent with the highest requirements in the State for that profession or discipline.

(2) The information required in paragraph (d)(1) of this section must be on file in the SEA, and available to the public.

(e) In identifying the highest requirements in the State for the purposes of this section, the requirements of all State statutes and the rules of all State agencies applicable to serving children and you th with disabilities must be considered.

{Authority: 20 U.S.C. 1413(a)(14)}

Note: The regulations require that the State use its own existing highest requirements to determine the standards appropriate to personnel who provide special education and related services under this part. The regulations do not require States to set any specified training standard, such as a master's degree, for employment of personnel who provide services under this part. In some instances, States will be required to show that they are taking steps to retrain or to hire personnel to meet the standards adopted by the SEA that are based on requirements for practices in a specific profession or discipline that were established by other State agencies. States in this position need not, however, require personnel providing services under this part to apply for and obtain the license, registration, or other comparable credential required by other agencies of individuals in that profession or discipline. The regulations permit each State to determine the specific occupational categories required to provide special education and related services and to revise or expand these categories as needed. The professions or disciplines defined by the State need not be limited to traditional occupational categories.

Comprehensive System of Personnel Development

§ 300.380 General
Each State shall--

(a)Develop and implement a comprehensive system of personnel development that--

(1) Is consistent with the purposes of the Act and with the comprehensive system of personnel development described in 34 CFR § 300.360;

(2) Meets the requirements in §§ 300.381-300.383; and

(3) Is consistent with the provisions on personnel standards in § 300.153; and

(b) Include in its State plan a description of the personnel development system required in paragraph (a)(1) of this section.

{Authority: 20 U.S.C. 1413 (a)(3), (a)(14)}

§ 300.381 Adequate supply of qualified personnel

Each State plan must include a description of the procedures and activities the State will undertake to ensure an adequate supply of qualified personnel (as the term "qualified) is defined at § 300.15), including special education and related services personnel and leadership personnel, necessary to carry out the purposes of this part. The procedures and activities must include the development, updating, and implementation of a plan that--

(a) Addresses current and projected special education and related services personnel needs, including the need for leadership personnel; and

(b) Coordinates and facilitates efforts among SEA and LEAs, institutions of higher education, and professional associations to recruit, prepare, and retain qualified personnel, including personnel from minority backgrounds and personnel with disabilities.

{Authority: 20 U.S.C. 1413 (a)(3)(A)}

§ 300.382 Personnel preparation and continuing education

Each State plan must include a description ofthe procedures and activities the State will undertake to ensure that all personnel necessary to carry out this part are appropriately and adequately prepared. The procedures and activities must include--

(a) A system for the continuing education of regular and special education and related services personnel to enable these personnel to meet the needs of children with disabilities under this part;

(b) Procedures for acquiring and disseminating to teachers, administrators, and related services personnel significant knowledge derived from education research and other sources; and

(c) Procedures for adopting, if apropriate, promising practices, materials, and teachnology, proven effective through research and demonstration.

{Authority: 20 U.S.C. 1413 (a)(3)(B)}

§ 300.383 Data system on personnel and personnel development.

(a) *General.* The procedures and activities required in § § 300.381 and 300.382 must include the development and maintenance of a system for determining, on an annual basis, the data required in paragraphs (b) and (c) of this section.

(b) *Data on qualififed personnel.* (1) The system required by paragraph (a) of this section must enable each State to determine, on an annual basis--

(i) The number and type of personnel, including leadership personnel, employed in the provision of special education and related services, by profession of discipline;

(ii) The number and type of personnel who are employed with emergency, provisional, or temporary certification in each profession or discipline who do not hold appropriate State certification, licensure, or other credentials comparable to certification or licensure for that profession or discipline; and

(iii) The number and type of personnel, including leadership personnel, in each profession or discipline needed, and a projection of the numbers of those personnel that will be needed in five years, based on projections of individuals to be served, retirement and other departures of personnel from the field, and other relevant factors.

(2) The data on special education and related services personnel required in paragraph (b)(1) of this section must include audiologists, counselors, diagnostic and evlauation personnel, home-hospital teachers, interpreters for students with hearing impairments including deafness, occupational therapists, physical education teachers, physical therapists, psychologists, rehabilitation counselors, social workers, speech-language pathologists, teacher aides, recreation and therapeutic recreation specialists, vocational education teachers, work-study coordinators, and instructional and noninstructional staff.

(3) The data on leadership personnel required by paragraph (b)(1) of this section must include administrators and supervisors of State or local agencies who are involved in the provision or supervision of services or activities necessary to carry out the purposes of this part.

(c) *Data on personnel development.* The system required in paragraph (a) of this section must enable each State to determine, on an annual basis, the institutions of higher education within the State that are preparing special education and related services personnel, including leadership personnel, by area of specialization, including--

(1) The numbers of students enrolled in programs for the preparation of special education and related services personnel administered by these institutions of higher education; and

(2) The numbers of students who graduated during the past year with certification or licensure, or with credentials to qualify for certification or licensure, from programs for the preparation of special education and related services personnel administered by institutions of higher education.

{Authority: 20 U.S.C. 1413 (a)(3)(A)}

*** Rules and regulations were reprinted word for word from the Federal Register, however, spaces between the paragraphs were inserted and larger type was used to enhance readability.**